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| TRANSMIT  | TOIPE                   | Application Number                               |          | 10/526,470  |   |  |  |
|---|-------------------------|--|----------|---|---|--|--|
| TRANSMIT  | E)                      | Filing Date                                      |          | March 3, 20   | 005   |  |  |
| FORM  | APR 0 7 2005 E          | First Named Inventor                             | r T      | Hidekazu T  | ANAKA et al.                                |  |  |
| 1   | B .0                    | Art Unit   |          | TBA   |   |  |  |
| (to be used for all correspondence Total Number of Pages in This Su                                     | e after milital ADEVINE | Examiner Name                                    |          | TBA   |   |  |  |
| Total Number of Pages in This Su  | ubmission 33            | Attorney Docket Nun                              | nber     | 12480-000102/US   |   |  |  |
| ENCLOSURES (check all that apply)   |                         |  |          |   |   |  |  |
| Fee Transmittal Form  | ☐ Drawing(s             | )  |          | After Allow   | ance Communication to TC                    |  |  |
| Fee Attached  | Licensing-              | related Papers                                   |          | Appeal Communication to Board   |   |  |  |
| Amendment / Reply   | Petition                | ] !  |          | of Appeals and Interferences Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |   |  |  |
| After Final   |                         | Petition to Convert to a Provisional Application |          |   | Proprietary Information                     |  |  |
| Affidavits/declaration(s)   |                         | Attorney, Revocation<br>f Correspondence Addres  | ss C     | Status Letter   |   |  |  |
| Extension of Time Request   | Terminal [              | Terminal Disclaimer                              |          |   | Other Enclosure(s) (please identify below): |  |  |
|   |                         | Request for Refund                               |          | Second Preliminary Amendment  |   |  |  |
| Express Abandonment Requ  | CD, Numb                | CD, Number of CD(s)                              |          |   |   |  |  |
| Information Disclosure Statement  | ☐ Lan                   | ☐ Landscape Table on CD                          |          |   | `   |  |  |
| Certified Copy of Priority Document(s)  | Remarks                 |  |          |   |   |  |  |
| Reply to Missing Parts/ Incomplete Application  |                         |  |          |   |   |  |  |
| Reply to Missing Parts under 37 CFR1.52 or 1.   | 53                      |  |          |   |   |  |  |
|   | SIGNATURE OF            | APPLICANT, ATTORN                                | NEY. OF  | RAGENT  |   |  |  |
| Firm  |                         | y & Pierce, P.L.C.                               |          |   |   |  |  |
| Signature   | Si                      | Summet   | (41,     | 646) h  | er e  |  |  |
| Printed Name  | Donald J. Daley         | <b>'</b> ,                                       |          |   |   |  |  |
| Date  | Date April 7, 2005      |  | Reg. No. | No. 34,313  |   |  |  |
| CERTIFICATE OF TRANSMISSION/MAILING   |                         |  |          |   |   |  |  |
| I hereby certify that this corresp<br>Service with sufficient postage<br>Alexandria, VA 22313-1450 on t | as first class mail     | in an envelope addresse                          |          |   |   |  |  |
| Typed or printed name   |                         | ,  |          | Express Mail<br>Label No.   | . ':  |  |  |
| Signature   |                         | ***************************************          |          | Date  |   |  |  |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the ÚSPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.





### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/526,470

Filing Date:

March 3, 2005

Applicant:

Hidekazu TANAKA et al.

Group Art Unit:

Unknown

Examiner:

Unknown

Title:

FIELD-EFFECT TRANSISTOR

Attorney Docket:

12480-000102/US

Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314 Mail Stop Amendment April 7, 2005

### **INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

#### I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information submitted for consideration by the Office (except unpublished U.S. patent applications) are listed on Form PTO-1449 attached hereto.

#### II. COPIES

A. Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) for each cited pending unpublished U.S. application listed below in Section IV, the application specification including the claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. Any patents, publications or other information which are listed on Form PTO-1449 or on the copies of Form PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

#3

U.S. Application No. 10/526,470 Attorney Docket No. 12480-000102/US Page 2 of 5

# U.S. Serial Number

# U.S. Filing Date

|     | C. Because the present application of the U.S. patents or U.S. patents attached Form PTO-1449 are § 1.98(a)(2)(i). Any foreign patents attached Form PTO-1449 are encountered form PTO-1449 are encountered form PTO-1449.          | ent application publications whi<br>enclosed pursuant to the wa<br>ent documents or non-patent lit  | ch are listed on the aiver of 37 C.F.R.  |
|-----|---|---|--|
|     | D. This is a PCT application in A copy of the International Search The documents listed on the Internation by the from this application. Since the Insurance of USPTO under the trilateral agrabove-identified application. (Minus) | th Report is attached for the Examinational Search Report are listed the Examiner and for listing on international Search Report was for these references should have been and are believed to be | miner's information.<br>on the attached Form<br>any patent resulting<br>from the US, EPO, or<br>been supplied to the |
| Ш.  | CONCISE EXPLANATION OF  | THE RELEVANCE (check at le  | east one box)  |
|     | A. Except as may be indicated information are in the English lan  |   |  |
|     | B. A concise explanation of information listed that is not in § 1.98(a)(3)):  |   |  |
|     | foreign application   | abstract is provided for: Meet  | ing Abstract of the  |
|     | C. The following addition consideration.  | nal information is provided   | for the Examiner's   |
| IV. | CROSS REFERENCE TO RELA   | ATED APPLICATION(S)   |  |
|     | A. The Examiner is advised the subject matter that may be related application(s) to the Examiner's confidentiality provisions of 35 U   | d to the present application. By sattention, Applicant(s) does  | bringing this(these)   |
|     | Serial No.  | Filing Date   | Art Unit   |

U.S. Application No. 10/526,470 Attorney Docket No. 12480-000102/US Page 3 of 5

## V. THIS IDS IS BEING FILED UNDER

| A. 🛛 3 | 37 C.F.R. § 1.97(b): (check <u>only</u> one box)   |
|--------|--|
|        | 1. within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.  |
|        | 2.  within three months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.   |
|        | 3. before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p). |
|        | 4. Defore the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.   |
| в. 🗌 3 | 7 C.F.R. § 1.97(c): (check <u>only</u> one box)  |
|        | before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.  |
|        | 1. No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).  |
|        | 2.  See the certification below. No fee is required.   |
| C. 🔲 3 | 37 C.F.R. § 1.97(d):   |
|        | after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.  |
|        | 1.  See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).   |
|        |  |

U.S. Application No. 10/526,470 Attorney Docket No. 12480-000102/US Page 4 of 5

| VI.   | CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)  The undersigned hereby certifies that:   |  |  |  |  |  |
|-------|---|--|--|--|--|--|
|       |   |  |  |  |  |  |
|       | A.  each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. § 1.704(d) below in section VII, if applicable; or   |  |  |  |  |  |
|       | B. no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).   |  |  |  |  |  |
|       | C. Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS. |  |  |  |  |  |
| VII.  | STATEMENT UNDER 37 C.F.R. § 1.704(d)  |  |  |  |  |  |
|       | The undersigned hereby states that:   |  |  |  |  |  |
|       | each item of information contained in this IDS was cited in a communication from a patent office in a counterpart application and this communication was not received by dividual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this   |  |  |  |  |  |
| VIII. | PAYMENT OF FEES (check only one box)  |  |  |  |  |  |
|       | A. No fee is believed to be due in light of the above-provided certification.   |  |  |  |  |  |
|       | B. A check in the amount of \$180.00 is enclosed for the above-identified fee.  |  |  |  |  |  |
|       | C. Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.   |  |  |  |  |  |

U.S. Application No. 10/526,470 Attorney Docket No. 12480-000102/US Page 5 of 5

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. §§ 1.16 or 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

Donald J. Daley, Reg. No. 34,313

P.O. Box 8910 Reston, Virginia 20195 (703) 668-8000

DJD/GPB:ewd

| Enclosures: | $\boxtimes$ | Form PTO-1449(s) (1 sheet(s)) |
|-------------|-------------|-------------------------------|
|             | $\boxtimes$ | Documents                     |
|             |             | Foreign Search Report         |
|             |             | Fee                           |
|             |             | Other:                        |

| III AII AII LICATION |   |  | ATTY DOCKET NO.<br>12480-000102/US                 |                      | APPLICATION NO.<br>10/526,470 |                |                  |
|----------------------|---|--|--|----------------------|-------------------------------|----------------|------------------|
|                      |   |  | APPLICANT(S)<br>Hidekazu TANAKA et al.             | CONF. NO.<br>Unknown |                               |                |                  |
|                      |   |  | FILING DATE<br>March 3, 2005                       | GROUP<br>Unknown     |                               |                |                  |
|                      | U.  | S. PATENT DO                             | CUMENTS  |                      |                               |                |                  |
| EXAMINER<br>INITIAL  | DOCUMENT NUMBER   | DATE                                     | NAME   | CLASS                | SUB<br>CLASS                  |                |                  |
|                      |   |  |  |                      |                               |                |                  |
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|                      | DOCUMENT NUMBER   | DATE                                     | COUNTRY CLASS                                      |                      | SUB<br>CLASS                  | TRANSLATION    |                  |
|                      |   |  |  |                      |                               | YES            | МО               |
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|                      | H. Ohno et al., "Electric-field of  | control of ferromagneti                  | sm," Nature, Vol. 408, pp. 9                       | 44-946, 2            | 2000.                         |                |                  |
|                      | S. Mathews et al., "Ferroelectric Field Effect Transistor Based on Epitaxial Perovskite Heterostructures," Science, Vol. 276, pp. 238-240, 1997.  |  |  |                      |                               |                | nce,             |
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|                      | T. Kanki et al., "Fabrication of Field Effect Transistor of the strongly correlated Mn Oxides and their magneto-transport properties," Chuba Univ., Mtg Abstract of the Phy. Soc. of Japan, Vol. 57, Issue 2, Part 3, p. 499, Sep. 6-8, 2000. |  |  |                      |                               |                |                  |
| EXAMINER             |   |  | DATE CONSIDERED                                    |                      |                               | -              |                  |
| EXAMINER: Initia     | l if citation considered, whether or not citation is in conformance with N  | 4.P.E.P. 609; Draw line through citation | n if not in conformance and not considered. Inclu  | de copy of this      | form with next con            | nmunication to | applicant.       |

DJD/GPB:ewd